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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,947	11/13/2003	Forrest Lee Wilson	SJO920030075US1	9548

.7590 03/19/2007
Brian C Kunzler
8 East Broadway Suite 600
Salt Lake City, UT 84111

EXAMINER

PHAM, HUNG Q

ART UNIT	PAPER NUMBER
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2168

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/712,947	Applicant(s) WILSON ET AL.	
	Examiner HUNG Q. PHAM	Art Unit 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6-12,14-20 and 22-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-12,14-20 and 22-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/02/2007 has been entered.

Response to Arguments

- *Claim Rejections - 35 USC § 112*

(1) As indicated in the Office Action 11/02/2006, the claimed limitation, *a target volume having the target LUN on the SCSI bus*, as recited in claims 1, 9 and 17 has been rejected under 35 U.S.C. § 112, first paragraph. The applicants have not provided supportive evidence for this claimed limitation. The rejection of claims 1, 9 and 17 has been sustained.

(2) The rejection of claims 1, 7, 9, 15, 17 and 23 under 35 U.S.C. 112, second paragraph, has been withdrawn in view of the amendment.

- *Claim Rejections - 35 USC § 102/103*

Applicant's arguments with respect to the rejection under 35 U.S.C. § 102 and 103 have been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 24 and 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 24, the claimed limitation, *a Vicom Systems® Data Migration Engine moves the data between the source volume and the target volume*, was not described in the specification.

Regarding claim 25, the claimed limitation, *an Innovation Data Processing FDRPAS® moves the data between the source volume and the target volume*, was not described in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 24 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 24 and 25 contains the trademark/trade name *Vicom Systems® Data Migration Engine* and *Innovation Data Processing FDRPAS®*. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe the moving data and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 4, 6-12, 14-20, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Todd et al. [USP 7,093,088 B1], Dysert et al. [USP 6,804,690 B1] and Naik [Inside Windows Storage: Server Storage Technologies for Windows 2000, Windows Server 2003, and Beyond].

Regarding claims 1, 9 and 17, Todd teaches a method, program and a computer system comprising *a server adapted to interface with a plurality of data storage devices* (Todd, FIG. 2), *said computer system configured to migrate computer data files from one of said data storage device as a source to a second data storage device as a target* (Todd, Abstract) by:

requesting data from a source volume on the source data storage device, as a bit image of a logical volume (Todd, Col. 9 Lines 33-53), *wherein the source volume is mapped to a target logical unit number (LUN)* (Todd, Col. 22 Lines 29-33);

outputting the data to a target volume having the target LUN and writing the data on the target data storage device as a bit image of the logical volume (As disclosed by Todd at Col. 22 Lines 29-33, each source and target comprises a LUN. This teaching indicates source and target have the same LUN. Todd further discloses the data is outputted to the target volume and writing the data on the target data storage as a bit image of the logical volume at Col. 29 Lines 9-41).

Todd does not explicitly teach *a map file having source and target volume parameters* is in accordance with requesting data, and during outputting the data *all write commands go to the source and the target volume* and the LUN is on *a small computer system interface (SCSI) bus*.

However, as disclosed by Todd at Col. 20 Lines 35-52, the system that implements the data migration is EMC SYMMETRIX system. As further disclosed by Todd, the communication bus of the system can be implemented as *SCSI bus* (Todd, Col. 1 Lines 50-53).

Dysert teaches a system, method and program for backing up data (Dysert, Abstract). Dysert further discloses *a map file having source and target volume parameters* (Dysert, Col. 5 Lines 34-40) are in accordance with requesting data.

Naik teaches a system, method and program for local and remote mirroring data. Naik further discloses during outputting the data *all write commands go to the source and the target volume* (Naik, Page 17).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Todd system, method and program by applying the LUN on the SCSI bus, using a map file as taught by Dysert and directing a write operation to both source and

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target as taught by Naik in order to direct the request to a particular volume of a target SCSI device and synchronizing the source and target during replicating data.

Regarding claims 2, 10 and 18, Todd, Dysert and Naik, in combination, teach all of the claimed subject matter as discussed above with respect to claims 1, 9 and 17, Todd further discloses *the computer system is adapted to request data on the source storage device as a bit image of a logical volume, cylinder by cylinder, track by track, and bit by bit, and to thereafter write the data to the target data storage device as a bit image of a logical volume, cylinder by cylinder, track by track, and bit by bit* (Todd, Col. 48 Lines 5-14).

Regarding claims 11 and 19, Todd, Dysert and Naik, in combination, teach all of the claimed subject matter as discussed above with respect to claims 9 and 17, Dysert further discloses *the computer system is adapted to migrate logical volumes in accordance with a map file having source and target volume parameters* (Dysert, Col. 5 Lines 34-40).

Regarding claims 4, 12 and 20, Todd, Dysert and Naik, in combination, teach all of the claimed subject matter as discussed above with respect to claims 1, 9 and 17, Todd further discloses *the logical volume comprises a physical volume* (Todd, Col. 9 Lines 30-53).

Regarding claims 6, 14 and 22, Todd, Dysert and Naik, in combination, teach all of the claimed subject matter as discussed above with respect to claims 1, 9 and 17, Todd further discloses *the computer system is further adapted to place a busy condition on the source volume after data migration* (Todd, Col. 25 Line 62-Col. 26 Line 11, retire option). Naik discloses the claimed limitation *set a SCSI ID to identify the target volume for access* (Naik, Page 23).

Regarding claims 7, 15 and 23, Todd, Dysert and Naik, in combination, teach all of the claimed subject matter as discussed above with respect to claims 1, 9 and 17, Todd further discloses *the computer system is adapted to place a busy condition on the source volume after outputting data* (Todd, Col. 25 Line 62-Col. 26 Line 11, retire option), *and repeating requesting data and outputting data on a logical volume by logical volume basis* (Todd, Col. 25 Lines 11-24), *whereby a user accesses data from the source volume and moves off of it at substantially the same time* (Todd, Col. 25 Line 62-Col. 26 Line 11). Naik discloses the claimed limitation *set a SCSI ID to identify the target volume for access* (Naik, Page 23).

Regarding claims 8 and 16, Todd, Dysert and Naik, in combination, teach all of the claimed subject matter as discussed above with respect to claims 1 and 9, Todd further discloses *computer data files are accessible to an end user from either data storage device* (Todd, Col. 10 Lines 24-24-36).

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Todd et al. [USP 7,093,088 B1], Dysert et al. [USP 6,804,690 B1], Naik [Inside Windows Storage: Server Storage Technologies for Widows 2000, Windows Server 2003, and Beyond] and further in view of Vicom System [SCSI-Fibre Channel Router].

Regarding claim 24, Todd, Dysert and Naik, in combination, teach all of the claimed subject matter as discussed above with respect to claim 9, but does not teach *a Vicom Systems® Data Migration Engine* is used and *moves the data between the source volume and the target volume*. As disclosed by Vicom system, and SCSI-FC router as in Page 1 as *a Vicom Systems® Data Migration Engine* is used and *moves the data between the source volume and the target volume*. It would have been obvious for one of ordinary skill in the art at the time the invention was made to include SCSI-FC

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router into Todd, Dysert and Naik system, program and method to move data in order to mirror data to a remote target volume.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Todd et al. [USP 7,093,088 B1], Dysert et al. [USP 6,804,690 B1], Naik [Inside Windows Storage: Server Storage Technologies for Windows 2000, Windows Server 2003, and Beyond] and further in view of Innovation Data Processing [Innovation Data Processing].


Regarding claim 25, Todd, Dysert and Naik, in combination, teach all of the claimed subject matter as discussed above with respect to claim 9, but does not teach *an Innovation Data Processing FDRPAS® is used and moves the data between the source volume and the target volume.* Innovation Data Processing discloses FDRPAS V5.4 *an Innovation Data Processing FDRPAS® is used and moves the data between the source volume and the target volume.* It would have been obvious for one of ordinary skill in the art at the time the invention was made to use FDRPAS into Todd, Dysert and Naik system, program and method to move data in order to mirror data to a remote target volume.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIM T. VO can be reached on 571-272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


HUNG Q PHAM
Examiner
Art Unit 2168

March 14, 2007